

R E M A R K S

The last Office Action has been carefully considered.

It is noted that the drawings are objected to and the claims are rejected under 35 USC 112.

Claims 1-15 are rejected under 35 USC 103(a) over the U.S. patent application publication to Clauss et al in view of the U.S. patent to Miller et al.

In connection with the Examiner's formal objections and rejections, applicants amended the specification and submitted a copy Figure 1 with the proposed correction. Also, Claim 1 has been amended. As for Claim 10, the Examiner's statement related to this claim is not clear.

After carefully considering the Examiner's grounds for rejection of the claims over the art, applicants amended Claim 1, the broadest method claim defining a method of operating a high-frequency measurement device, and Claim 12, the broadest claim on file defining a high-frequency measuring device in accordance with the present invention.

Turning now to the Examiner's grounds for rejection of the claims over the art, it is respectfully submitted that Claims 1 and 12 clearly and patentably distinguish the present invention from the prior art applied by the Examiner.

In the Clauss reference, in particular in paragraphs 11-17 of the patent application publication, a device-interior drift due to temperature fluctuations or changes in air moisture is described. Since from this and other reasons the transmission and receiver electronic units can drift relative to one another, a reduced measuring accuracy takes place.

In contrast, the present invention deals with a method for operating a high-frequency measurement device which is carried out so as to reduce an influence of external interference sources. This means that in addition to a desired measurement signal, which must be detected with the measurement device, also an undesired interference signal takes place and is measured. This problem is not disclosed in the Clauss reference, and in particular in paragraphs 11-17, and Clauss provides no solution to solve this problem.

It is believed to be clear that the Clauss reference does not disclose the new features of the present invention which are now defined in Claims 1 and 12.

The patent to Miller discloses a system and a method for reducing narrow-band interference signals via ultra wide-band signals and it also does not disclose the new features of the present invention.

As disclosed in the abstract of the Miller reference, the system of this reference utilizes an “RFI removal filter” for suppression or removal of narrow-band interference signals. Miller specifically states that:

“The RFI is extracted from the UWB signal by employing a filter (406) that is matched approximately with the RFI in the base-band signal, extracting RFI and passing the desired data signal unscathed.”

The cooperation between the RFI filter and the analog-to-digital converter in the device disclosed in the Miller reference is explained for example in column 4, lines 49-63 of this reference. It is clearly stated there that the interference signal is removed via a filter, wherein the analog-to-digital converter is located before or after the RFI filter to digitalize the corresponding data.

An analog/digital converter, which, depending on an interference signal measurement value correlated with the interference signals, varies its scan rate is not however disclosed in the patent to Miller.

Claim 5 of the patent to Miller clearly states that the “sample rate” of the analog/digital converter is adjustable, and however, in connection with this it is stated that this adjustment of the “sample rate” is performed to affect a completeness of extraction of the narrow-band signal.

In particular, the patent to Miller does not provide any hint, suggestion, or motivation to vary the scan rate of the analog/digital converter in dependence on an interference signal measurement value. In the method in accordance with the present invention, the interference signal is measured, from it an interference signal measurement value is determined, and then the scan rate of the analog/digital converter is varied in dependence on this interference signal measurement value, or in other words, as a function of the interference signal measurement value. The provision of an interference signal measurement value which serves as a control signal for the sampling rate of the analog/digital converter is not disclosed in the patent to Miller, it cannot be derived from it as a matter of obviousness, and the reference does not contain any hint or suggestion for such feature.

The patent to Miller therefore also does not teach the new features of the present invention as now defined in Claims 1 and 12.

It is further respectfully submitted that the new features of the present invention cannot be considered as obvious from the combination of the references. In particular, the feature that the scan rate of an analog/digital converter is varied depending on an interference signal measurement value is not disclosed in the references and cannot be derived from them as a matter of obviousness taken singly, or in combination with one another. It should be emphasized that the Examiner did not explain any reasons why the references can be combined with one another. It is believed that the references are not combinable with one another as a matter of obviousness, since the Clauss reference discloses a solution for a device-interior drift problem, in particular a thermal drift problem, while the patent to Miller discloses a method for reducing external interference signals. There are no reasons why a person of ordinary skill in the art would combine these references to arrive exactly at the applicant's invention.

It is respectfully submitted that Claims 1 and 12 therefore should be considered as patentably distinguishing over the art and should be allowed.

As for the dependent claims, these claims depend on the corresponding independent claims, they share their allowable features, and therefore it is respectfully submitted that they should be allowed as well.

Reconsideration and allowance of the present application is most respectfully requested.

Should the Examiner require or consider it advisable that the specification, claims and/or drawings be further amended or corrected in formal respects in order to place this case in condition for final allowance, then it is respectfully requested that such amendments or corrections be carried out by Examiner's Amendment, and the case be passed to issue. Alternatively, should the Examiner feel that a personal discussion might be helpful in advancing this case to allowance; he is invited to telephone the undersigned (at 631-549-4700).

Respectfully submitted,



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